

Remarks

Claims 1-11 remain pending in this application after entry of this paper. The Examiner has rejected claims 1-4 under 35 U.S.C. 102(e) as being anticipated by Page et al. (6,175,821). The Examiner rejected claim 5 under 35 U.S.C. 103(a) as being obvious over Page et al. in view of Karalli et al. (5,668,926). The Examiner rejected claim 6, also under 35 U.S.C. 103(a) over Page et al. The Examiner rejected claims 7-10 under 35 U.S.C. 103(a) as being obvious over Page et al. in view of Lin et al. (6,076,060).

Regarding the rejection of claims 1-4, independent claim 1 recites a method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules. The digital voice library includes a plurality of speech items including words, syllables and a corresponding plurality of voice recordings. Each speech item corresponds to at least one available voice recording. The method comprises training the digital voice library to associate each syllable speech item with a literal text syllable of the particular syllable speech item.

The Examiner references Figure 1 of Page and explains that the system contains ROM that stores recordings of phrases used for message outputs and a speech converter that has a diphone dictionary for converting text to speech. Figure 1 of Page specifically illustrates an automated directory incorporating a message generator. The message generator merges the recorded speech output of the ROM and the synthesized output of the text to speech converter. But Page fails to describe or suggest "training the digital voice library to associate each syllable speech item with a literal text syllable of the particular speech item" as recited by claim 1.

In rejecting claim 1, the Examiner further states that "[i]nherently, for speech synthesis, [the diphone] dictionary has to be trained (or initially populated) in order to create a mapping between text syllables and diphones." Applicant still believes that Page does not describe or suggest the claimed invention. Page generally discloses a method of generating a voice message signal representing all or part of a message comprising a variable portion and

an invariable portion. A transitional signal is generated to join the invariable portion and the variable portion.

Specifically, Page fails to describe or suggest "training the digital voice library to associate each syllable speech item with a literal text syllable of the particular speech item." To properly reject claim 1 under principles of inherency, Page must necessarily incorporate each recited claim feature. But Page does not necessarily incorporate each recited claim feature. Although the diphone dictionary of Page needs to be trained to create a map between text syllables and diphones, it cannot be inherent in Page that the training occurs as recited by claim 1. More specifically, Page most likely uses any traditional training technique and does not necessarily use the claimed technique.

For the reasons described above, Applicant maintains that Page fails to describe or suggest the claimed invention as recited by claim 1 and that the claimed technique cannot properly be deemed inherent in Page.

Claims 2-4 are dependent claims and are also believed to be patentable.

Regarding the rejection of claim 5, claim 5 is also a dependent claim and incorporates the method of independent claim 1. Although Karaali does discuss neural networks, it fails to overcome the noted deficiencies of Page and there is no motivation to combine the references to achieve the claimed invention. Thus, claim 5 is also believed to be patentable for its dependency.

Claim 6 is a dependent claim which incorporates the features of claim 1 and is also believed to be patentable. Claim 6 teaches a particular method of training the digital voice library to associate each syllable speech item with a literal text syllable of the particular speech item. Applicant requests that the Examiner provide references to overcome the combination of features as described by the claim. Applicant believes that the additionally recited subject matter is not an obvious variation, but is patentable subject matter.

Regarding the rejection of dependent claims 7-10, claims 7-10 also incorporate the method of independent claim 1. Lin describes a method and apparatus for text to phoneme conversion based on suffix, prefix, and infix rules sets. Phonemic data is produced for any portion of the input text that matches a particular rule. However, Lin still fails to overcome the noted deficiencies of Page. Particularly, Lin does not describe or suggest the feature of "training the digital voice library to associate each syllable speech item with a literal text syllable of the particular speech item." Applicant also believes there is no motivation to combine the references to achieve the claimed invention. Claims 7-10 are believed to be patentable.


Claim 11 is a dependent claim, also incorporating the method of independent claim 1. Carter discusses a messaging system having a text-to-speech convertor for converting text segments of email messages into speech signals for playback over a telephone connection. Although Carter does teach playing back speech signals of previously converted text segments that are identical to any text segments of the new email message from the cache, Carter fails to overcome the noted deficiencies of Page. Also, Applicant believes there is no motivation to combine the references to achieve the claimed invention. As such, claim 11 is also believed to be patentable.

In summary, the claims recite a specific method for training a digital voice library that is not described or suggested by Page and are believed to be patentable. Further, the Examiner tried to combine the features of Page and Karaali, Page and Lin, and Page and Carter to achieve the claimed invention. However, the secondary references fail to overcome the deficiencies described for Page. Also, there is no motivation to combine the references to achieve the claimed invention. Allowance of claims 1-11 is respectfully requested.

Respectfully submitted,

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